

For Research Use Only

GPX4 Recombinant antibody, PBS Only (Detector)

Catalog Number: 82949-1-PBS



Basic Information

Catalog Number: 82949-1-PBS	GenBank Accession Number: BC022071	Purification Method: Protein A purification
Size: 100ug, Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 2879	CloneNo.: 230168A8
Source: Rabbit	UNIPROT ID: P36969	
Isotype: IgG	Full Name: glutathione peroxidase 4 (phospholipid hydroperoxidase)	
Immunogen Catalog Number: AG5809	Calculated MW: 22 kDa	

Applications

Tested Applications:
IHC, IF/ICC, FC (Intra), Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

Species Specificity:
human, mouse

Product Information

82949-1-PBS targets GPX4 as part of a matched antibody pair:

MP00049-1: 82949-3-PBS capture and 82949-1-PBS detection (validated in Cytometric bead array)

MP00049-3: 82949-4-PBS capture and 82949-1-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

GPX4 (Phospholipid hydroperoxide glutathione peroxidase, mitochondrial) protects cells against membrane lipid peroxidation and cell death. Required for normal sperm development and male fertility. It has two isoforms about 20kDa and 22kDa, respectively. GPX4 is a monomer, but it has a tendency to form higher mass oligomers (PMID:17630701). It presents primarily in testis.

Storage

Storage:
Store at -80°C.
Storage Buffer:
100% PBS pH 7.3

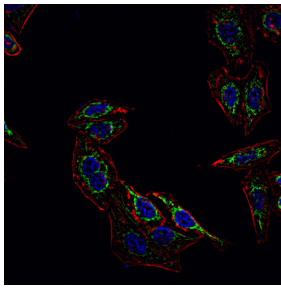
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

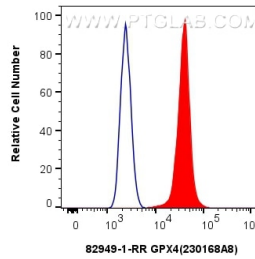
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

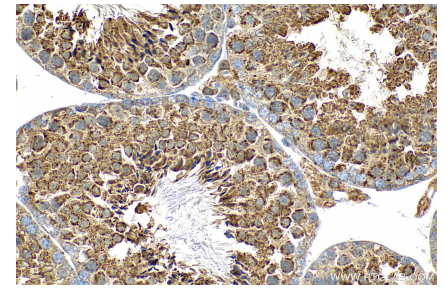
Selected Validation Data



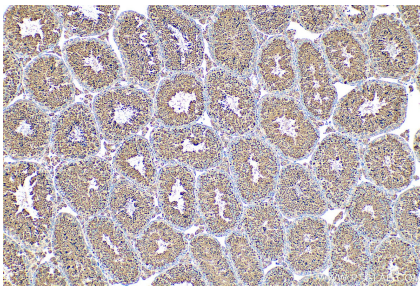
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using GPX4 antibody (82949-1-RR, Clone: 230168A8) at dilution of 1:300 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 82949-1-PBS in a different storage buffer formulation.



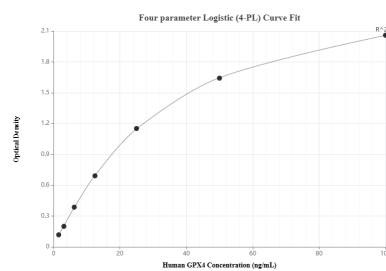
1×10^6 HeLa cells were intracellularly stained with 0.25 μ g GPX4 Recombinant antibody (82949-1-RR, Clone:230168A8) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.25 μ g Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 82949-1-PBS in a different storage buffer formulation.



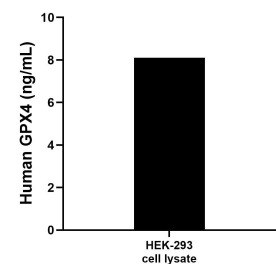
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 82949-1-RR (GPX4 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82949-1-PBS in a different storage buffer formulation.



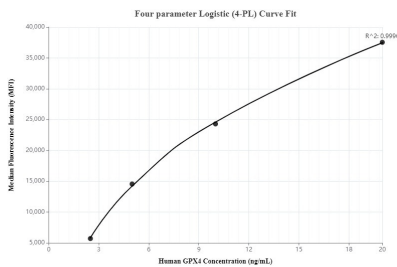
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 82949-1-RR (GPX4 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82949-1-PBS in a different storage buffer formulation.



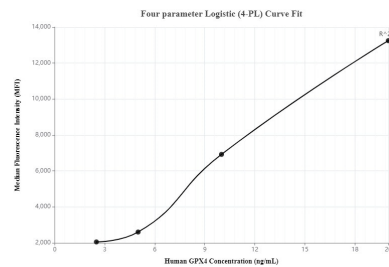
Sandwich ELISA standard curve of MP00049-3, Human GPX4 Recombinant Matched Antibody Pair - PBS only. 82949-4-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag5809. 82949-1-PBS was HRP conjugated as the detection antibody. Range: 1.56-100 ng/mL



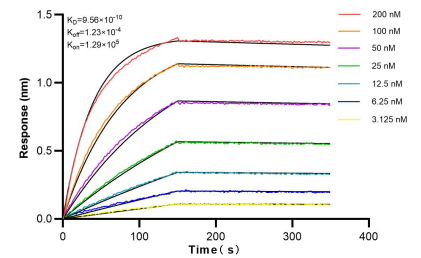
HEK-293 cell lysate was measured. The human GPX4 concentration of detected samples was determined to be 8.1 ng/mL (based on a 1.2 mg/mL extract load).



Cytometric bead array standard curve of MP00049-1, GPX4 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 82949-3-PBS. Detection antibody: 82949-1-PBS. Standard: Ag5809. Range: 2.5-20 ng/mL



Cytometric bead array standard curve of MP00049-3, GPX4 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 82949-4-PBS. Detection antibody: 82949-1-PBS. Standard: Ag5809. Range: 2.5-20 ng/mL



Bi-layer interferometry (BLI) kinetic assays of 82949-1-RR against Human GCLM were performed. The affinity constant is 1 pM.